

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In Re The Application of:
Graham Haley et al.

Serial No.: 10/072,097

Filed: February 8, 2002

For: METHOD AND APPARATUS
FOR MAC ADDRESS ASSIGNMENT

Examiner: Burgess, Barbara N.

Art Unit: 2157

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Sir:

AMENDED BRIEF ON APPEAL ON BEHALF OF APPELLANT
UNDER 37 C.F.R. §41.37

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AMENDED BRIEF ON APPEAL ON BEHALF OF APPELLANT

In support of the Notice of Appeal filed on May 22, 2007 appealing the Examiner's Final Rejection of claims 1-8, 12-19, 23-30, and 34-41, mailed February 23, 2007, Appellants hereby provide the following remarks. This amended brief is in response to a Notification of Non-Compliant Appeal Brief dated Sept. 10, 2008 objecting to the Amended Appeal Brief filed June 27, 2008.

I. REAL PARTY IN INTEREST

The present application was assigned from the inventors, Haley Graham and Neil Jarvis to Cisco Technology, Inc., recorded on February 8, 2002 at reel/frame 012756/0856. Thus, Cisco Technology, Inc. is the real party in interest.

II. RELATED APPEALS AND INTERFERENCES

The undersigned, the Assignee, and the Appellants do not know of any appeals or interferences which would directly affect or which would be directly affected by, or have a bearing on, the Board's decision in this Appeal.

III. STATUS OF THE CLAIMS

The status of the claims is:

A. Total Number of Claims in Application

Claims 1-8, 12-19, 23-30, and 34-41 stand pending in the Application.

B. Status of All the Claims

Claims 9-11, 20-22, 31-33, and 42-44 stand cancelled.

Claims 1-8, 12-19, 23-30, and 34-41 stand rejected¹.

¹ While the Final Office Action mentions claim 31 as rejected, this is believed to be a typographical error as claim 31 was not pending in the case at that time, having been cancelled.

No claims are withdrawn from consideration on appeal.

No claims stand allowed.

C. Claims on Appeal

Claims 1-8, 12-19, 23-30, and 34-41 are currently being appealed.

IV. STATUS OF AMENDMENTS

No amendments have been filed subsequent to the Final Office Action.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

This invention relates to a process by which a client or port device in a local area network (“LAN”) receives a MAC address for use in the network (Page 4, Lines 12-18). There are four independent claims pending. Independent Claim 1 is a method claim claiming a client side method for receiving a MAC address (FIG. 1a; also see FIGs. 1b, 2, and 3). Independent Claim 12 is an apparatus claim claiming a network device (FIG. 5 # 508; Page 12, Lines 20-21) containing a processor that executes the method in Claim 1. The processor and memory in this claim are found in Claim 12 as initially filed and are well known in the art. Independent Claim 23 is an apparatus claim claiming a network device (FIG. 5 # 508; Page 12, Lines 20-21) utilizing 35 U.S.C. § 112 ¶6 “*means for*” language to execute the method steps of Claim 1. One set of “*means for*” elements executing the steps in Independent Claim 1 utilize the processor and memory from Claim 12. Finally, Independent Claim 34 is an *in re Beauregard* type claim claiming a program storage device containing instructions for executing the method claimed in Claim 1 (Page 3, Line 20 through Page 4, Line 3).

Since all four independent claims effectively claim the same method steps as claimed in Claim 1, only in different formats, the four claims will be described here together as a method or process, with the understanding that the description here of the method or process is incorporated by reference for each of the four independent claim.

The method or process begins by the client selecting a MAC address available for the network (FIG. 1a #102; Page 5, Lines 12-16). The client then monitors broadcasts over the network for each MAC address advertisement frame transmitted over the network responsive after the MAC address is selected (FIG. 1a, #104; Page 5, Lines 15-17).

The client then determines whether any of the monitored advertisement frames is an advertisement frame for the selected MAC address (FIG. 1a, #106; Page 5, Lines 18-20). The client then broadcasts a MAC address request frame requesting the selected MAC address (FIG. 1a, #108; Page 5, Lines 19-22). The client then determines whether a MAC address response frame was received from the server (FIG. 1a, #112; Page 5, Line 22 through Page 6, Line 2). If a MAC address response frame is not received, the client then broadcasts a MAC address advertisement frame. The MAC address advertisement frame being for the selected address indicating the client is using the selected address (Page 6, Lines 1-10).

VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Appellants seek the Board's review of the rejection of Claims 1-8, 12-19, 23-30, and 34-41 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,732,165 B1 issued to Jennings III ("Jennings").

VII. ARGUMENT

Grouping Of The Claims

Appellants group the claims in the following manner. Group I includes claims 1-8; Group 2 includes claims 12-19; Group III includes claims 23-30; and Group IV includes claims 34-41. Groups I-IV stand and fall on their own merits.

Rejection of Claims under 35 U.S.C. §102(b) in view of Jennings

In the Office Action, the Examiner rejected Claim 1 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent 6,732,165 B1 issued to Jennings, III (“Jennings”). To anticipate a claim under 35 U.S.C. § 102, a single source must contain all of the elements of the claim. *Lewmar Marine Inc. v. Barient, Inc.*, 827 F.2d 744, 747, 3 U.S.P.Q.2d 1766, 1768 (Fed. Cir. 1987), *cert. denied*, 484 U.S. 1007 (1988). Moreover, the single source must disclose all of the claimed elements “*arranged as in the claim.*” *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 716, 223 U.S.P.Q. 1264, 1271 (Fed. Cir. 1984). The test for anticipation is symmetrical to the test for infringement and has been stated as: “*That which would literally infringe [a claim] if later in time anticipates if earlier than the date of invention.*” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989); *Connell v. Sears Roebuck & Co.*, 722 F.2d 1542, 1548, 220 U.S.P.Q. 1931, 1938 (Fed. Cir. 1983).

Claim 1 claims:

In a local area network ("LAN") system comprising at least one client, a method performed by a client to receive a MAC address for said network comprises:
selecting, by said client, a MAC address available for said network;
monitoring, by said client, broadcasts over said network for each MAC address advertisement frame transmitted over said network responsive to selecting said MAC address;
determining whether each said advertisement frame monitored by said client is an advertisement frame for said selected MAC address;
broadcasting a MAC address request frame by said client wherein said MAC address request is requesting said selected MAC address, responsive to a determination that each said MAC advertisement frame monitored is not an advertisement frame for said selected MAC address;
determining whether a MAC address response frame was received by said client responsive to broadcasting said MAC address request frame; and
broadcasting a MAC address advertisement frame from said client wherein said MAC address advertisement frame is for said selected address indicating said client is using said selected address if no MAC address response frame was received.

It recites that a client system selects **a MAC address**, then monitors advertisements to see if another client is requesting the MAC address and then broadcasts an advertisement for the selected MAC address if no other device is requesting the address. Jennings does not teach such a technique. Instead, Jennings teaches techniques for servers connected to a main server to receive **a network address**, and is silent regarding, selection, monitoring or broadcasting of **MAC addresses**. A MAC address and a network address are well understood to those of skill in the art to be quite different.

Indeed, Jennings specifically draws a distinction between these two types of addresses. For example, Jennings states “RARP also requires that the RARP server maintain large databases of hardware to network address mappings. In the case of an internet protocol (IP) based network, this would correspond to a hardware address (MAC) to IP address map.” *See* col. 2, lines 5-7. The distinction is further pointed out in step 419 of Figure 4 of Jennings, in which a MAC address of the system is used to

determine which server is to receive a particular network address. Thus, Jennings does not teach a technique for selecting a MAC address for a system in the manner claimed by the Appellants. Therefore, Appellants respectfully requests that the rejection of Claim 1 be removed and Claim 1 be allowed.

The remainder of Group I, Claims 2-8, depend from claim 1. Thus, Claims 2-8 are allowable for at least the same reasons as Claim 1. Therefore, Appellants respectfully request that the rejections of Claims 2-8 also be removed and that Group I including Claims 2-8 be allowed.

Claim 12 is an independent claim of Group II. Claim 12 recites a client system that performs the method of Claim 1. Thus, Claim 12 is allowable for at least the same reasons as Claim 1. Therefore, Appellants respectfully request that the Examiner remove the rejection of Claim 12 and allow Claim 12.

The remainder of Group II, Claims 13-19, depend from Claim 12. Thus, Claims 13-19 are allowable for at least the same reasons as Claim 12. Therefore, Appellants respectfully request that the rejections of Claims 13-19 also be removed and that Group II including Claims 13-19 be allowed.

Claim 23 is the independent claim for Group III. Claim 23 recites a client system that performs the method of Claim 1. Thus, Claim 23 is allowable for at least the same reasons as Claim 1. Therefore, Appellants respectfully request that the Examiner remove the rejection of Claim 23 and allow Claim 23.

The remainder of Group III, Claims 24-30, depend upon Claim 23. Thus, Claims 24-30 are allowable for at least the same reasons as Claim 23. Therefore, Appellants respectfully request that the rejections of Claims 24-30 be removed and that Group III including Claims 24-30 be allowed.

Claim 34 is the independent Claim of Group IV and recites client system software that performs the method of Claim 1. Thus, Claim 34 is allowable for at least the same

reasons as Claim 1. Therefore, Appellants respectfully request that the Examiner remove the rejection of Claim 34 and allow Claim 34.

The remainder of Group IV, Claims 35-41, depend upon Claim 34. Thus, Claims 35-41 are allowable for at least the same reasons as Claim 34. Therefore, Appellants respectfully request that the rejections of Claims 35-41 be removed and that Group IV including Claims 35-41 be allowed.

CONCLUSION

Appellants respectfully request the Honorable Board of Patent Appeals and Interferences to reverse the Examiner's rejection of Claims 1-8, 12-19, 23-30, and 34-41 under 35 U.S.C. §102(e) over the Jennings patent.

Appellants respectfully submit that the prior art does not teach what is claimed. Accordingly, for at least the aforementioned reasons, Appellants respectfully request the Honorable members of the Board of Patent Appeals and Interferences to reverse the outstanding rejections in connection with the present application and permit each of the claims in connection with the present application be allowed.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 03-1237 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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VIII. CLAIMS APPENDIX

This is a complete and current listing of the claims, marked with status identifiers in parentheses. The listing has been reformatted for ease of reading and understanding.

1. (REJECTED) In a local area network (“LAN”) system comprising at least one client, a method performed by a client to receive a MAC address for said network comprises:

selecting, by said client, a MAC address available for said network;

monitoring, by said client, broadcasts over said network for each MAC address advertisement frame transmitted over said network responsive to selecting said MAC address;

determining whether each said advertisement frame monitored by said client is an advertisement frame for said selected MAC address;

broadcasting a MAC address request frame by said client wherein said MAC address request is requesting said selected MAC address, responsive to a determination that each said MAC advertisement frame monitored is not an advertisement frame for said selected MAC address;

determining whether a MAC address response frame was received by said client responsive to broadcasting said MAC address request frame; and

broadcasting a MAC address advertisement frame from said client wherein said MAC address advertisement frame is for said selected address indicating said client is using said selected address if no MAC address response frame was received.

2. (REJECTED) The method of Claim 1, wherein said method further comprises:
receiving a MAC advertisement frame by said client;
determining whether said MAC address advertisement frame for said selected
address was received by said client;
sending a duplicate MAC address frame from said client, responsive to a
determination that said MAC address advertisement frame is for said
selected MAC address; and
returning to the act of broadcasting MAC address advertisement frames for said
selected address from said client.
3. (REJECTED) The method of Claim 2, wherein said method further comprises:
receiving a MAC address response frame from a server by said client;
determining whether said server confirms the availability of said selected MAC
address for said client responsive to said MAC address response frame
being received;
employing said MAC address for said client; and
proceeding to said act of broadcasting said MAC address advertisement frame for
said selected address from said client.
4. (REJECTED) The method of Claim 2, wherein said method further comprises
rejecting said selected MAC address by said client if a duplicate MAC address
frame was received.

5. (REJECTED) The method of Claim 2, wherein said method further comprises indicating a warning message by said client if no server confirms the availability of said selected MAC address.
6. (REJECTED) The method of Claim 2, wherein said method further comprises indicating a warning message by said client if a duplicate MAC address frame is received.
7. (REJECTED) The method of Claim wherein said method further compromises returning to the act of selecting a MAC address by said client if no server confirms the availability of the selected MAC address.
8. (REJECTED) The method of Claim 2, wherein said method further comprises: returning to the act of selecting a MAC address by said client if a duplicate MAC address frame was received for the selected MAC address.
9. (CANCELLED)
10. (CANCELLED)
11. (CANCELLED)

12. (REJECTED) A network device comprising a client, wherein said client comprises a processor and a memory; wherein said memory contains a program which when executed causes the processor to perform the acts comprising:
- selecting, by said client, a MAC address available for said network;
- monitoring, by said client, broadcasts over said network for each MAC address advertisement frame transmitted over said network responsive to selecting said MAC address;
- determining whether each said advertisement frame monitored by said client is an advertisement frame for said selected MAC address;
- broadcasting a MAC address request frame from said client requesting said selected MAC address responsive to a determination that each said MAC advertisement frame monitored is not an advertisement frame for said selected MAC address;
- determining whether a MAC address response frame was received by said client responsive to broadcasting said MAC address request frame; and
- broadcasting a MAC address advertisement frame from said client for said selected address indicating said client is using said selected address if no MAC address response frame was received.
13. (REJECTED) The network device of Claim 12, wherein said program further comprises the acts of:
- receiving a MAC advertisement frame by said client;

- determining whether said MAC address advertisement frame for said selected address was received by said client;
- sending a duplicate MAC address frame from said client, responsive to a determination that said MAC address advertisement frame is for said selected MAC address; and
- returning to the act of broadcasting MAC address advertisement frames for said selected address from said client.
14. (REJECTED) The network device of Claim 13, wherein said program further comprises the acts of:
- receiving a MAC address response frame from a server in said client;
- determining whether said server confirms the availability of said selected MAC address of said client responsive to said MAC address response frame being received;
- employing said MAC address by said client; and
- proceeding to said act of broadcasting said MAC address advertisement frame for said selected address from said client.
15. (REJECTED) The network device of Claim 13, wherein said program further comprises the act of rejecting said selected MAC address by said client if a duplicate MAC address frame was received.

16. (REJECTED) The network device of Claim 13, wherein said program further comprises the act of indicating a warning message by said client if no server confirms the availability of said selected MAC address.
17. (REJECTED) The network device of Claim 13, wherein said program further comprises the act of indicating a warning message in said client if a duplicate MAC address frame is received.
18. (REJECTED) The network device of Claim 13, wherein said program further comprises the act of returning to the act of selecting a MAC address by said server if no server confirms the availability of the selected MAC address.
19. (REJECTED) The network device of Claim 13, wherein said program further comprises the act of returning to the act of selecting a MAC address by said client if a duplicate MAC address frame was received for the selected MAC address.
20. (CANCELLED)
21. (CANCELLED)
22. (CANCELLED)

23. (REJECTED) A network device comprising at least one client, wherein each of said at least one client comprises:

means in said client for selecting a MAC address available for said network;

means in said client for monitoring broadcasts over said network for each MAC address advertisement frame transmitted over said network responsive to selecting said MAC address;

means in said client for determining whether each said advertisement frame monitored is an advertisement frame for said selected MAC address;

means in said client for broadcasting a MAC address request frame requesting said selected MAC address responsive to a determination that each said MAC advertisement frame monitored is not an advertisement frame for said selected MAC address;

means in said client for determining whether a MAC address response frame was received responsive to broadcasting said MAC address request frame; and

means in said client for broadcasting a MAC address advertisement frame for said selected address indicting said client is using said selected address if no MAC address response frame was received.

24. (REJECTED) The network device of Claim 23, wherein each of said at least one client further comprises:

means in said client for receiving a MAC advertisement frame;

means in said client for determining whether said MAC address advertisement frame for said selected address was received;

means in said client for sending a duplicate MAC address frame, responsive to a
determination that said MAC address advertisement frame is for said
selected MAC address; and
means in said client for returning to the act of broadcasting MAC address
advertisement frames for said selected address

25. (REJECTED) The network device of Claim 24, wherein each of said at least one
client further comprises:

means in said client for receiving a MAC address response frame from a server
means in said client for determining whether said server confirms the availability
of said selected MAC address responsive to said MAC address response
frame being received; and
means in said client for proceeding to said act of broadcasting said MAC address
advertisement frame for said selected address.

26. (REJECTED) The network device of Claim 24, wherein each of said at least one
client further comprises means in said client for rejecting said selected MAC
address if a duplicate MAC address frame was received.

27. (REJECTED) The network device of Claim 24, wherein each of said at least one
client further comprises means in said client for indicating a warning message if
no server confirms the availability of said selected MAC address.

28. (REJECTED) The network device of Claim 24, wherein each of said at least one client further comprises means in said client for indicating a warning message if a duplicate MAC address frame is received.
29. (REJECTED) The network device of Claim 24, wherein each of said at least one client further comprises means in said client for returning to the act of selecting a MAC address if no server confirms the availability of the selected MAC address.
30. (REJECTED) The network device of Claim 24, wherein each of said at least one client further comprises a means in said client for returning to the act of selecting a MAC address if a duplicate MAC address frame was received for the selected MAC address.
31. (CANCELLED)
32. (CANCELLED)
33. (CANCELLED)
34. (REJECTED) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method for receiving a MAC address, for said network, said method comprising:
selecting a MAC address available in said client for said network;

monitoring broadcasts over said network by said client for each MAC address
advertisement frame transmitted over said network responsive to selecting
said MAC address;
determining whether each said advertisement frame monitored by said client is an
advertisement frame for said selected MAC address;
broadcasting a MAC address request frame from said client requesting said
selected MAC address, responsive to a determination that each said MAC
advertisement frame monitored is not an advertisement frame for said
selected MAC address;
determining whether a MAC address response frame was received by said client
responsive to broadcasting said MAC address request frame; and
broadcasting a MAC address advertisement frame from said client for said
selected address indicating said client is using said selected address if no
MAC address response frame was received.

35. (REJECTED) The method of Claim 34, wherein said method further comprises:
receiving a MAC advertisement frame in said client
determining whether said MAC address advertisement frame for said selected
address was received by said client;
sending a duplicate MAC address frame from said client, responsive to a
determination that said MAC address advertisement frame is for said
selected MAC address; and

- returning to the act of broadcasting MAC address advertisement frames for said selected address.
36. (REJECTED) The method of Claim 35, wherein said client-side method further comprises:
- receiving a MAC address response frame from a server in said client;
 - determining whether said server confirms the availability of said selected MAC address responsive to said MAC address response frame being received by said client;
 - employing said MAC address for said client; and
 - proceeding to said act of broadcasting said MAC address advertisement frame for said selected address from said client.
37. (REJECTED) The method of Claim 35, wherein said method further comprises rejecting said selected MAC address by said client if a duplicate MAC address frame was received.
38. (REJECTED) The method of Claim 35, wherein said method further comprises indicating a warning message from said client if no server confirms the availability of said selected MAC address.

39. (REJECTED) The method of Claim 35, wherein said method further comprises indicating a warning message from said client if a duplicate MAC address frame is received.
40. (REJECTED) The method of Claim 35, wherein said method further comprises: returning to the act of selecting a MAC address by said client if no server confirms the availability of the selected MAC address.
41. (REJECTED) The method of Claim 35, wherein said method further comprises: returning to the act of selecting a MAC address by said client if a duplicate MAC address frame was received for the selected MAC address.
42. (CANCELLED)
43. (CANCELLED)
44. (CANCELLED)

IX. EVIDENCE APPENDIX

None.

X. RELATED PROCEEDINGS APPENDIX.

None.